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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,644	03/31/2007	Kazuo Kanetsuna	KUM-41089	8455
116 7590 04/20/2009 PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108				
EXAMINER				
HERRING, BRENT W				
ART UNIT		PAPER NUMBER		
3633				
MAIL DATE		DELIVERY MODE		
04/20/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/598,644

**Applicant(s)**

KANETSUNA, KAZUO

**Examiner**

BRENT W. HERRING

**Art Unit**

3633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 March 2007.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 6-18 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 6-18 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 07 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-85/86)  
Paper No(s)/Mail Date 11/02/2006, 09/07/2006  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 09/07/2006 and 11/10/2006 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

### ***Drawings***

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings symbols for concrete, insulation, and plastic are incorrect in the figures. Refer to 37 CFR 1.84(n). Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 6-9 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

Claim 6 is narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. Note the format of the claims in the patent(s) cited. Claims should begin with a preamble, followed by a transitional phrase and a body. Refer to MPEP 2173.02. In particular, it is unclear specifically what applicant is claiming as his invention in the language of claim 6. The claim should be amended for clarification.

5. Claim 6 further recites the limitation "a heat insulation panel" in both the preamble section of the claim and the body of the claim. It is unclear if "a heat insulation panel" in the body of the claim is referring to the heat insulation panel of the preamble.

**Claims are examined as best understood, in the instant case, the claims have been examined as the combination of a concrete wall body, a plastic reinforcing panel, and a molded heat insulation material.**

#### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 11-13, and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Hei, JP1994-6530.

Regarding claim 11:

'530 discloses an outer heat insulation wall structure having an outdoor side for receiving an exterior finish and an indoor side for providing a molding form against which concrete is placed and shaped to form a concrete wall comprising a preformed layered assembly of a heat insulation material (6) secured to a plastic reinforcing panel (3), said heat insulation material being located adjacent said indoor side of said wall structure (27) and said plastic reinforcing panel (3) being located adjacent said outdoor side of said wall structure, said plastic reinforcing panel including a plurality of groove-like air passage (5) sections located adjacent said heat insulation material, said air passage sections providing airflow along said wall structure.

Regarding claim 12:

'530 discloses claim 11, wherein said plastic reinforcing panel includes a generally flat sheet having a plurality of projecting spaced walls extending to said heat insulation material to form said groove-like air passage sections, said flat sheet being located adjacent said outdoor side (see Fig. 2).

Regarding claim 13:

'530 discloses claim 12, wherein said heat insulation material is permeable to indoor vapor (para. 0018) and communicates with said groove-like

air passage sections to inhibit condensation from collecting within said wall structure.

Regarding claim 16:

'530 discloses a method of forming a concrete wall having an outer heat insulation wall structure comprising the steps of providing said outer heat insulation wall structure in accordance with claim 11 and placing concrete (27) against said heat insulation material to form said concrete wall.

Regarding claim 17:

'530 discloses claim 16, further including the steps of providing a sheathing board (25) adjacent the interior side of said wall structure spaced from and secured to said wall structure by spaced mechanical ties (22) and shaping the indoor side of said concrete wall with said sheathing board.

Regarding claim 18:

'530 discloses claim 17, wherein said spaced mechanical ties comprise tie bolts (22, 26).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-10, and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hei, JP1994-6530 in view of Baracchini, EP 0,408,428.

Regarding claim 6:

'530 discloses in a heat insulation panel serving also as a placing mold form installed on the outdoor side of a concrete wall body (27), a heat insulation panel serving also as a mold form (1, see Fig. 1), characterized in that a plastic reinforcing panel (3) having a number of groove-like air passage sections (5) so as to permit communication in an in-plane direction are combined into an integral structure.

'530 does not expressly disclose wherein the plastic reinforcing panel is installed on the outdoor side of said heat insulation material and the groove-like air passages are formed on the side opposed to said heat insulation material.

'428 discloses a heat insulation panel wherein a heat insulation material is formed in contact with an interior concrete body (4) and wherein air passage sections (see Fig. 2) are installed on the outdoor side of the heat insulation material.

'428 and '530 are analogous art because they are from the same field of air passages and insulation adjacent the outdoor side of a concrete wall.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to configure the structure of '530 to have a heat insulation panel positioned on the interior side of the reinforcing panels adjacent the concrete structure as taught by '428.

The motivation to configure the structure of '530 as taught by '428 would have been to prevent the penetration and trapping of moisture adjacent the concrete structure (see the abstract of '428).

Furthermore, note that it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. In the instant case, the reversal of an insulation panel from the outdoor side of an air passage to the interior side of an air passage is reasonably suggested by '428.

Regarding claims 10:

'530 discloses an outer heat insulation wall structure having an outdoor side and an indoor side, characterized in that a heat insulation panel (1) serving also as a mold form provided by combining, into an integral structure, a heat insulation material (2) molded in the form of a panel and a plastic reinforcing panel (3) and having a number of groove-like air passage sections (5) formed so as to permit communication in an in-plane direction is disposed on the outdoor side of a concrete wall body, before external finish ( 25) is given to the outdoor side of said reinforcing panel.

'530 does not expressly disclose wherein the plastic reinforcing panel is installed on the outdoor side of said heat insulation material with the air passages on the side opposed to said heat insulation material.

'428 discloses wherein heat insulation material is positioned to the interior side of air passages adjacent a concrete structure.



At the time of the invention, it would have been obvious to a person of ordinary skill in the art to position the plastic reinforcing panel and the groove-like are passage sections on the outdoor side of the insulation as suggested by '428.

The motivation to reconfigure the relative positions of components would have been to prevent the penetration and trapping of moisture adjacent the concrete structure (see the abstract of '428).

Concerning the limitation drawn to the installation before external finish being given, note that the claimed structure matter appears to be met, and therefore it has been held that if the product defined in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made from a different process.

Regarding claim 7:

'530 in view of '428 discloses claim 6, and '530 further discloses wherein the heat insulation panel is made of a flame-resistant resin foam (para 0016).

Regarding claim 8:

'530 in view of '428 discloses claim 7, wherein the resin foam includes a phenol resin foam material (para. 0016).

Regarding claim 9:

'530 in view of '428 discloses claim 6, wherein the heat insulation material includes an inorganic material, note that "synthetic resins" are inorganic.

Regarding claim 14:

'530 discloses claim 13, but does not expressly disclose wherein the heat insulation material is a resin foam that is flame-resistant.

'530 does disclose a heat insulation material constructed of a resin foam that is flame-resistant, but that is not adjacent the indoor side of the concrete wall.

As suggested by '428 as set forth in the rejections of claims 6 and 10 above, it would have been obvious to a person of ordinary skill in the art to arrange the insulation panel portion (2, see Fig. 1 of '530) on the interior side of the insulation panel.

The motivation to arrange the resin foam heat insulation panel on the interior portion of the panel would have been to prevent the penetration and trapping of moisture adjacent the concrete structure (see the abstract of '428).

Regarding claim 15:

'530 in view of '428 discloses claim 14, and '530 further discloses wherein heat insulation material and plastic reinforcing panel are adhesively secured together (para. 0019 of '530).

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
10. Furthermore, applicant has attached machine translations of EP 0,408,428 A2 and JP 1994-6530.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENT W. HERRING whose telephone number is (571)270-3661. The examiner can normally be reached on Monday-Thursday, 8:00AM-5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian E. Glessner can be reached on (571)272-6847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. W. H./  
Examiner, Art Unit 3633

/Robert J Canfield/  
Supervisory Patent Examiner, Art Unit 3635